

Amendments to the Claims:

1. (currently amended): A method of authenticating media, the media comprising a digital watermark including a first metric, said method comprising:

decoding the digital watermark to obtain the first metric, wherein the first metric comprises a measure or characteristic corresponding to the digital watermark; ~~from the~~ digital watermark;

analyzing the digital watermark to determine a second metric; and

comparing the first metric and the second metric to determine whether the media has been altered.

2. (original): The method of claim 1 wherein an alteration comprises at least one of scanning, printing, editing, digital capture and photocopying the media.

3. (original): The method of claim 2 wherein the alteration is determined if the first and second metrics do not relate.

4. (original): The method of claim 1 wherein the first metric and the second metric each comprise a ratio between a selected coefficient and one or more neighboring coefficients.

5. (original): The method of claim 1 wherein the first metric and the second metric each comprise a ratio between a magnitude of a selected coefficient and an average of neighboring coefficients.

6. (original): The method of claim 1 wherein the digital watermark comprises a calibration signal, and wherein the first metric and the second metric are each determined from an analysis of the calibration signal.

7. (original): The method according to claim 1 wherein the first metric and the second metric each comprise an evaluation of signal peaks at selected frequency coefficients of the media, where the media has been previously modified to include peaks at the selected frequencies.

8. (original): The method of claim 1 wherein the media comprises at least one of a product tag, product label, identification card, identification document, image, photograph, picture, passport, license, stock certificate, bond certificate, deed, legal document, company logo, paper, product packaging, audio signal, video signal, sport card, trading card, digital signal, game card, advertisement, printed media, envelope, letterhead, stationary, book, sticker, business card, fabric and clothing.

9. (original): The method according to claim 1 wherein said first metric comprises at least one of a power ratio, power signature of the digital watermark, energy level, threshold

amount, color space information, spot color information, acceptable degradation level and printer type.

10. (currently amended): A computer including a digital watermark embedder comprising an embedding module to embed a benchmark in a media signal, the benchmark comprising a watermark signal characteristic, the benchmark to be included in the watermark signal embedded by said embedder.

11. (currently amended): A method of determining authenticity of media using a digital watermark embedded in the media, the digital watermark comprising a message, wherein the message comprises a measure or characteristic corresponding to the digital watermark signal, said method comprising:

extracting the digital watermark from the media; and

evaluating the extracted digital watermark in comparison to the message to measure degradation of the digital watermark based on differences between the extracted digital watermark and the message.

12. (currently amended): The method of claim 11, wherein the digital watermark message comprises a first metric and the evaluating ~~step~~ generates a second metric based on an analysis of the extracted digital watermark, the first metric being compared to the second metric to measure degradation of the extracted digital watermark.

13. (currently amended): The method of claim 11 wherein the evaluating step includes comparing signal peaks of the digital watermark to signal peak information conveyed by the message.

14. (original): The method of claim 13, wherein the signal peaks comprise frequency domain peaks.

15. (currently amended): A ~~fragile~~ digital watermarking method comprising:
embedding a digital watermark in a media signal, the digital watermark being designed to be lost or to predictably degrade upon predetermined signal processing;
rendering the embedded media signal;
detecting the digital watermark from the rendered embedded media signal;
generating a metric based on the detected digital watermark; and
embedding the metric in the embedded media signal, ~~as part of the digital watermark.~~

16. (currently amended): The method of claim 15 wherein said ~~step of~~ rendering comprises at least one of printing, broadcasting and streaming.

17. (new): The method of claim 15 wherein the metric is embedded in the embedded media signal so as to be part of the digital watermark.

18. (new): The method of claim 15 wherein the metric is embedded in the embedded media signal as a second digital watermark.

19. (new): A digital watermarking method comprising:

embedding a digital watermark in a media signal;

analyzing the digital watermark embedded in the media signal to determine a baseline state for the digital watermark;

embedding first information in the media signal, the first information corresponding to the baseline state of the digital watermark; and

embedding second information in the media signal, the second information corresponding to a rendering channel through which the media signal will be rendered.

20. (new): The method of claim 19, wherein the second information comprises color-space information.

21. (new): The method of claim 19, wherein the second information comprises printer-specific information.

22. (new): The method of claim 19, wherein the second information comprises at least rendering device information.

23. (new): The method of claim 19, wherein prior to said analyzing, said method further comprises rendering the embedded media signal, and said analyzing comprises analyzing the rendered media signal to determine a baseline state for the digital watermark embedded therein.

24. (new): The method of claim 19 wherein the first information comprises the second information.

25. (new): A digital watermarking method comprising:
embedding a digital watermark in a media signal, the digital watermark being designed to be lost or to degrade upon at least one form of signal processing;
determining a metric for the embedded digital watermark, the metric comprising a benchmark for the embedded digital watermark;
embedding the metric in the media signal; and
embedding data in the media signal, the data indicating how the metric was determined.

26. (new): The method of claim 25 further comprising encrypting the data prior to embedding the data in the media signal.

27. (new): The method of claim 25 wherein the embedded data indicates a predetermined metric protocol.